

APPENDIX C:

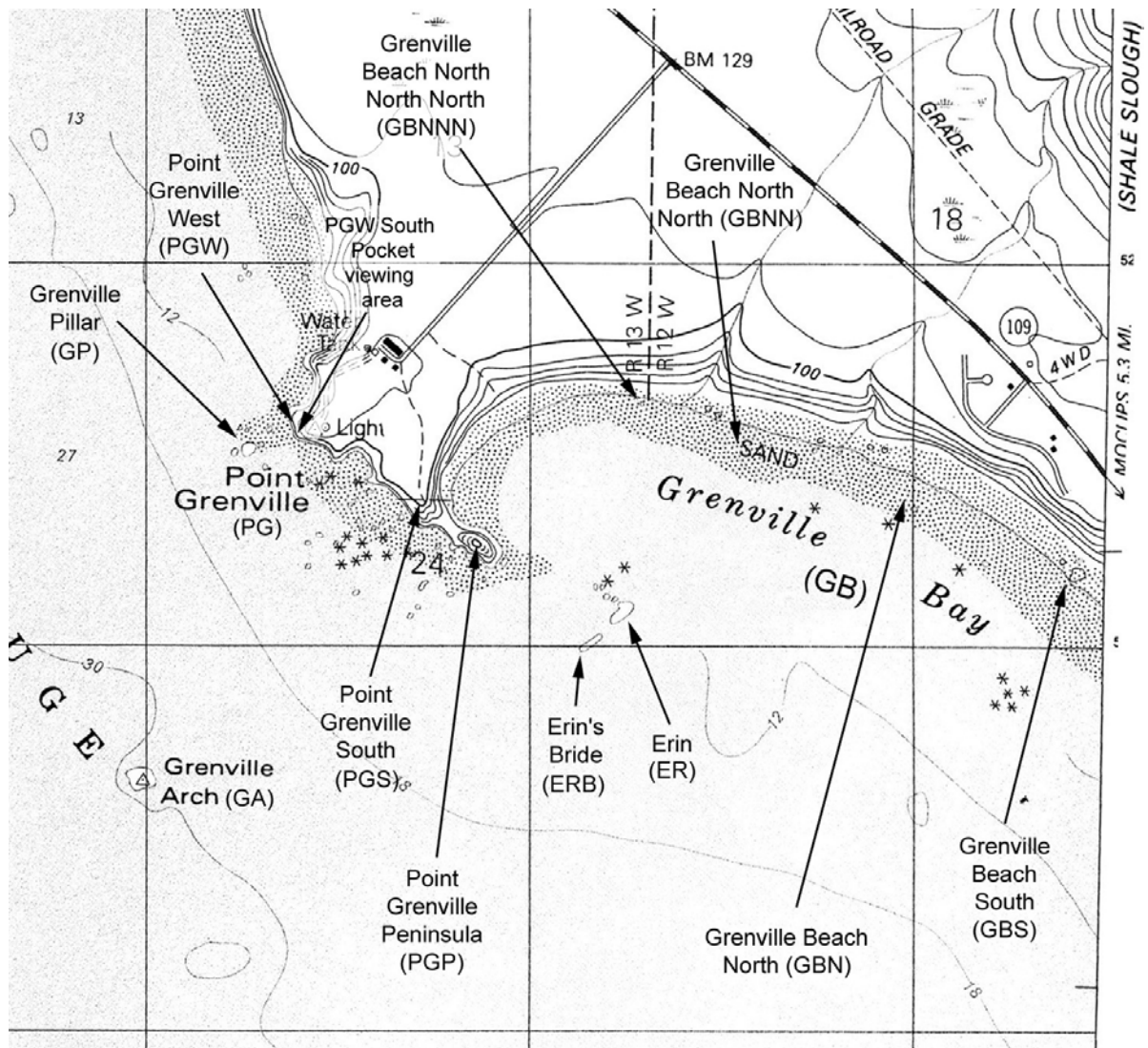
Common Murre (*Uria aalge*)  
Sub-colony Descriptions  
Point Grenville, Washington 2001  
Copalis National Wildlife Refuge

Data collected by Stephani Zador and Dan Nelson, University of Washington  
Photos and layout by Dan Nelson  
30 August 2001

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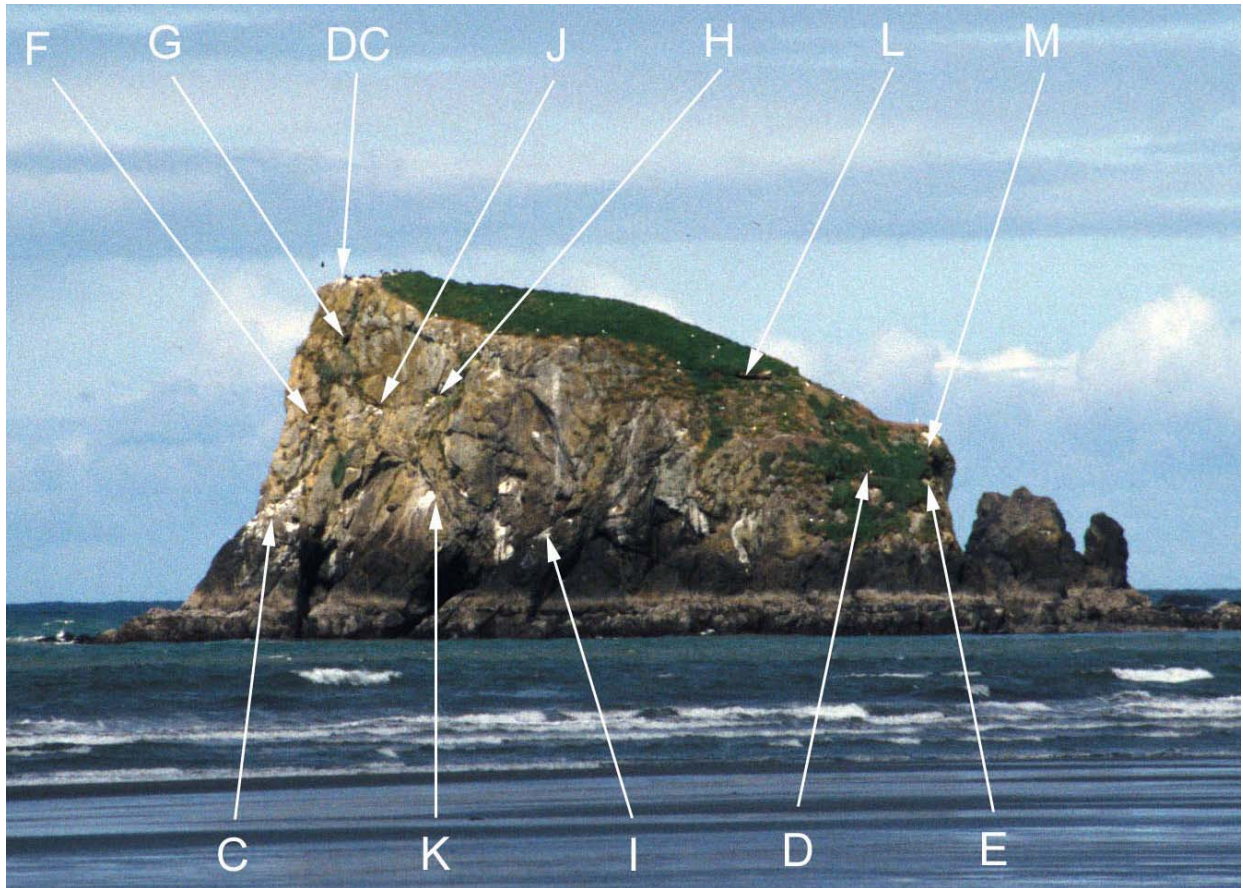
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# Study Area Map

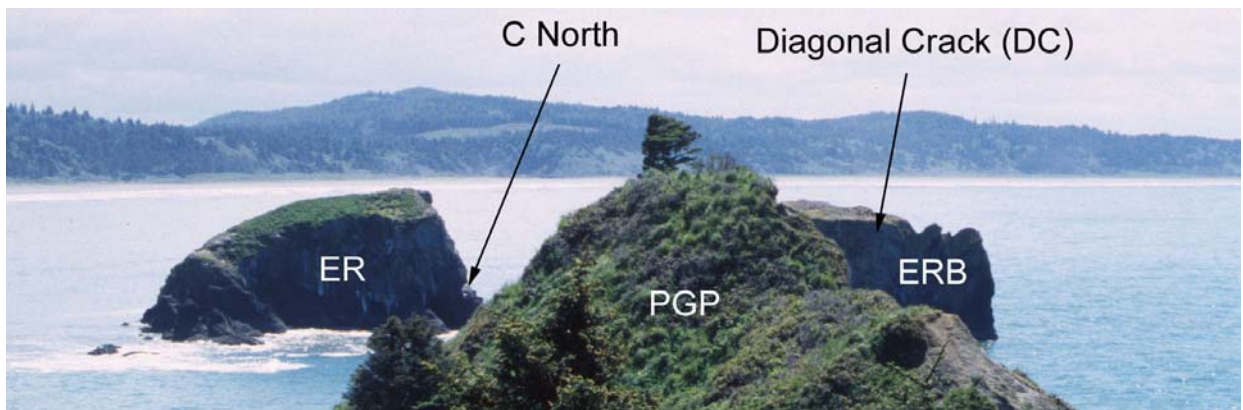


# Rocks

## Erin (ER)

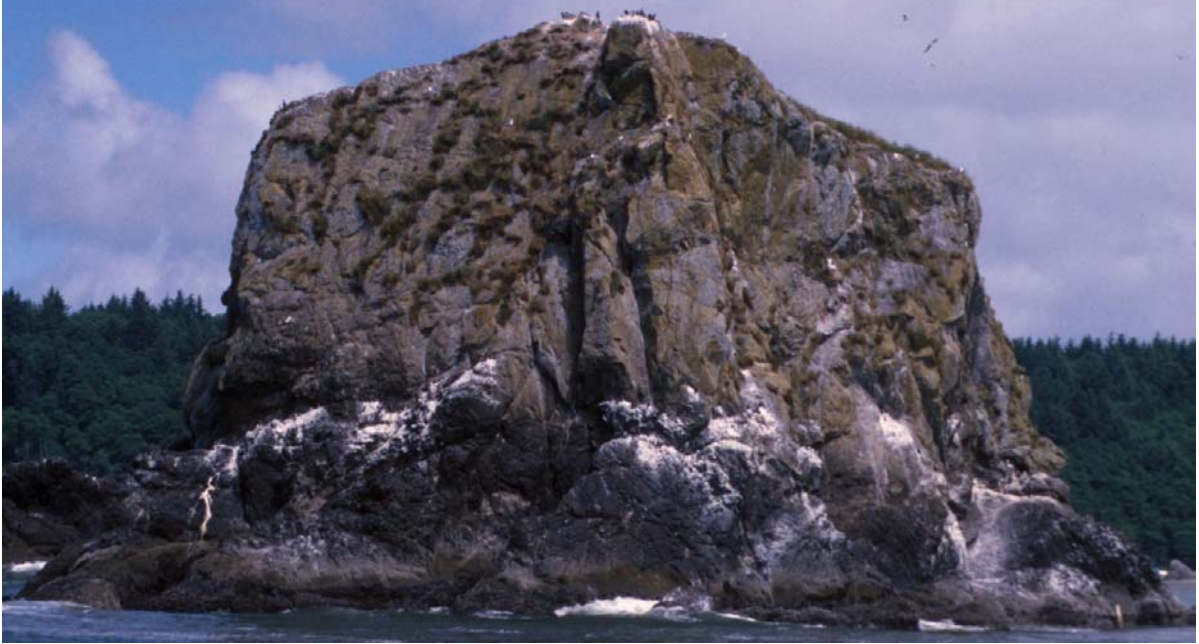


Erin from GBS; E face ( 9 June 2001)



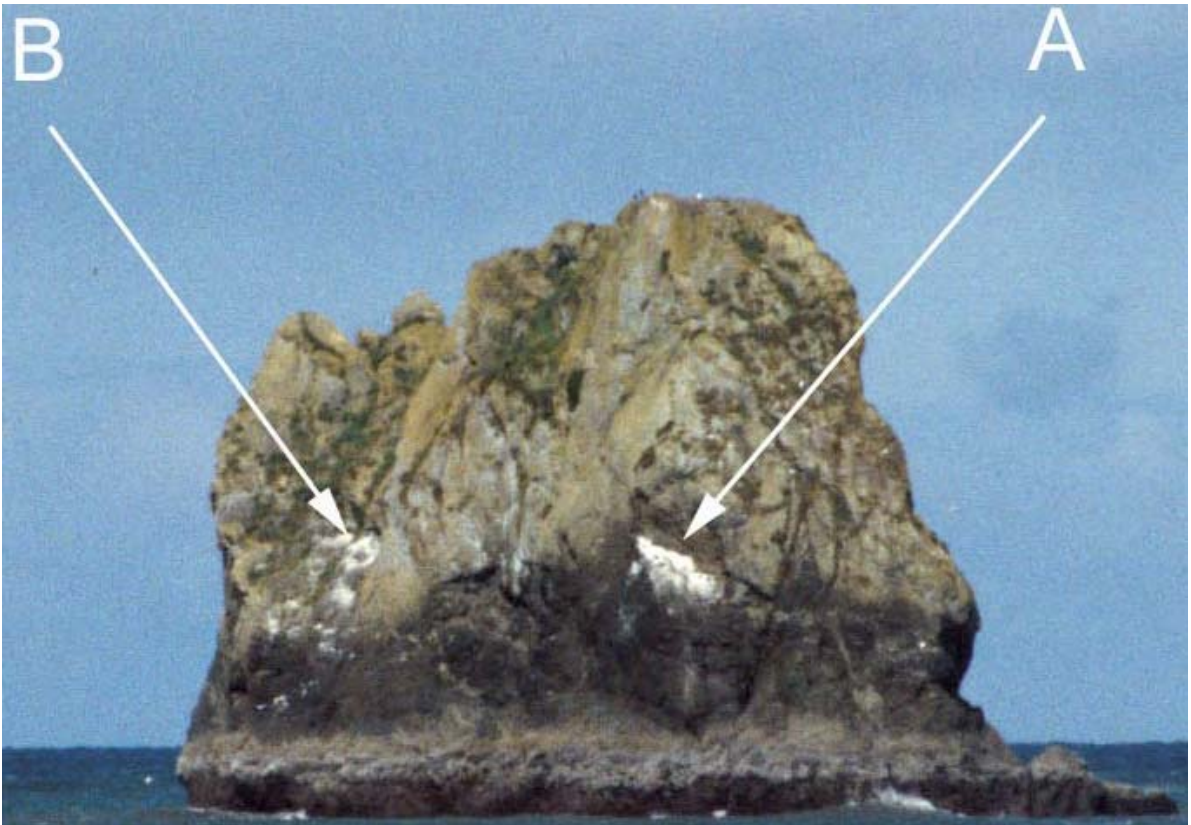
Erin and Erin's Bride from PGS; NW faces (6 June 2001)





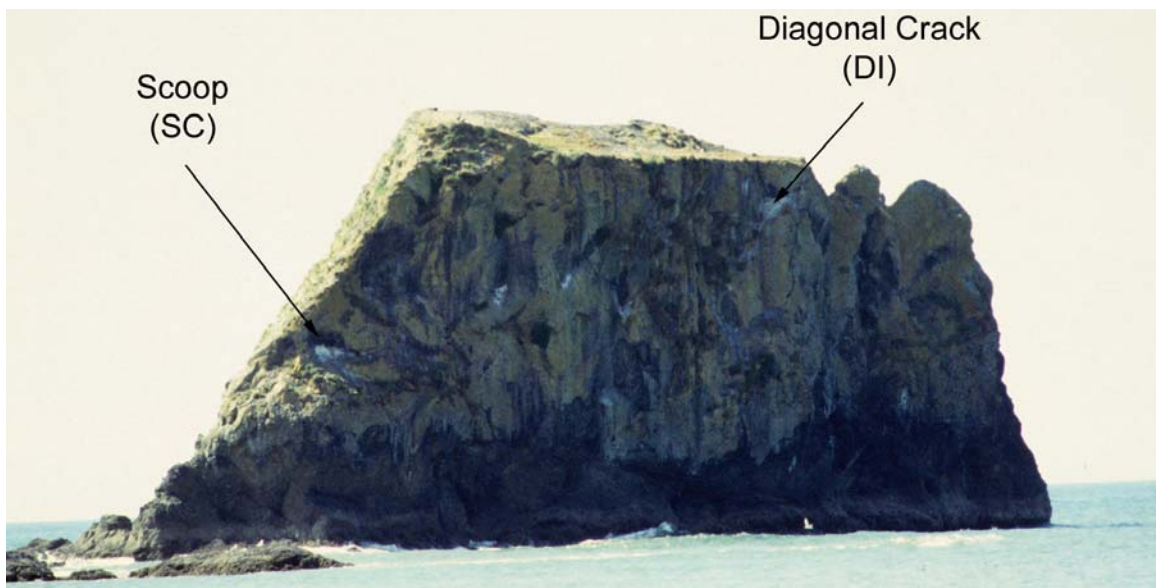
Erin from boat; SW face (5 July 2001)

### **Erin's Bride (ERB)**



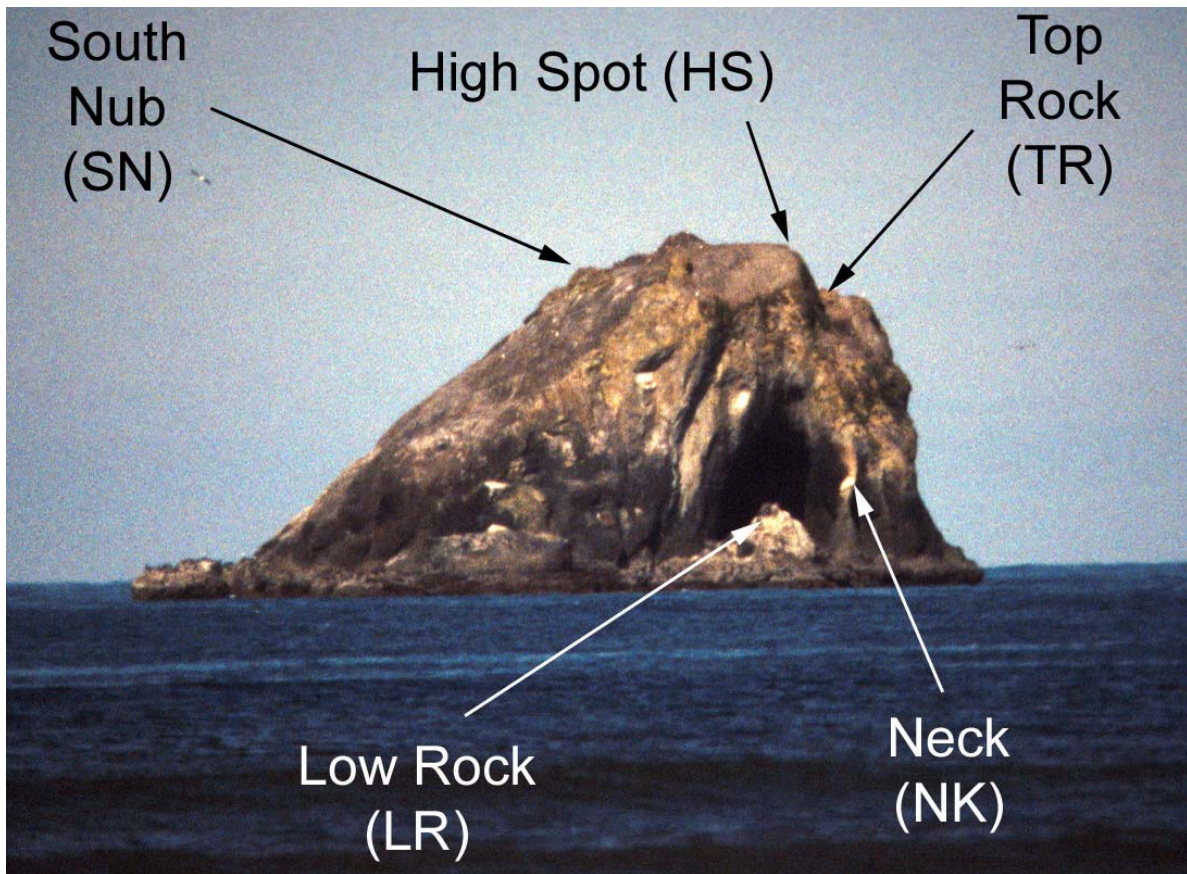
Erin's Bride from GBS; E face ( 9 June 2001)



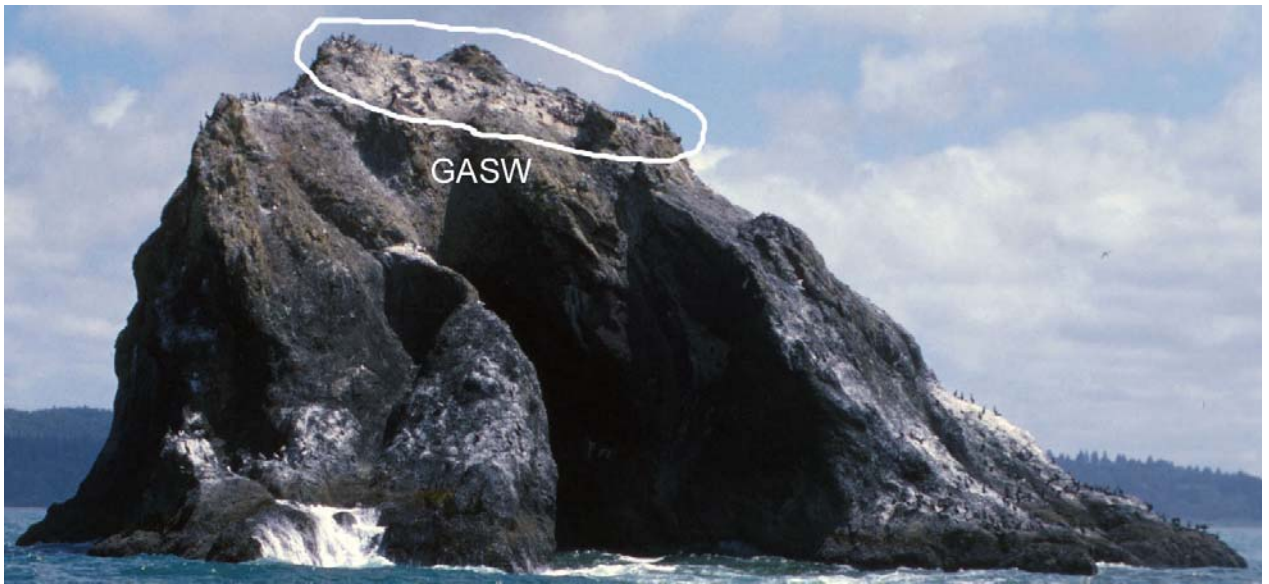


Erin's Bride from GBNNN; N face (18 June 2001)

### **Grenville Arch (GA)**



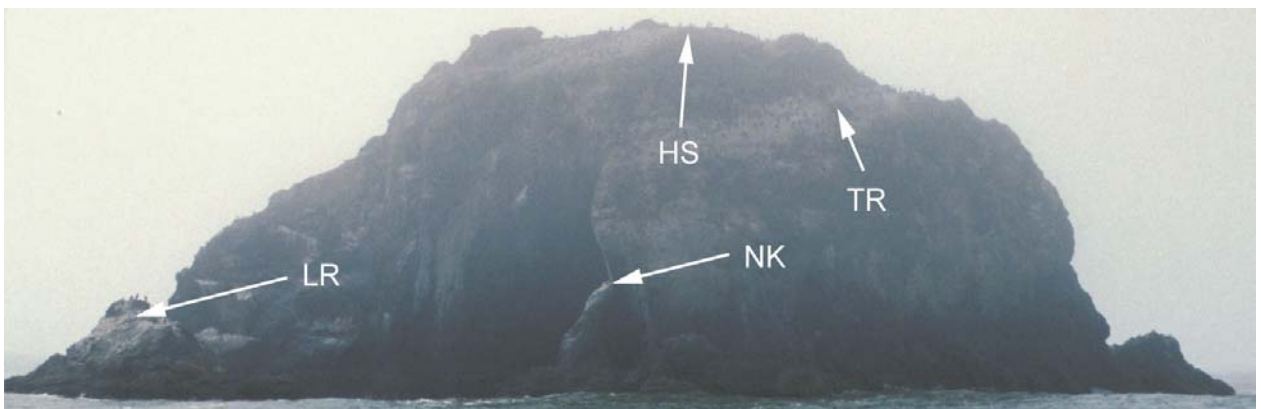
Grenville Arch from GBS; E face (6 June 2001)



Grenville Arch from boat; W face (5 July 2001)



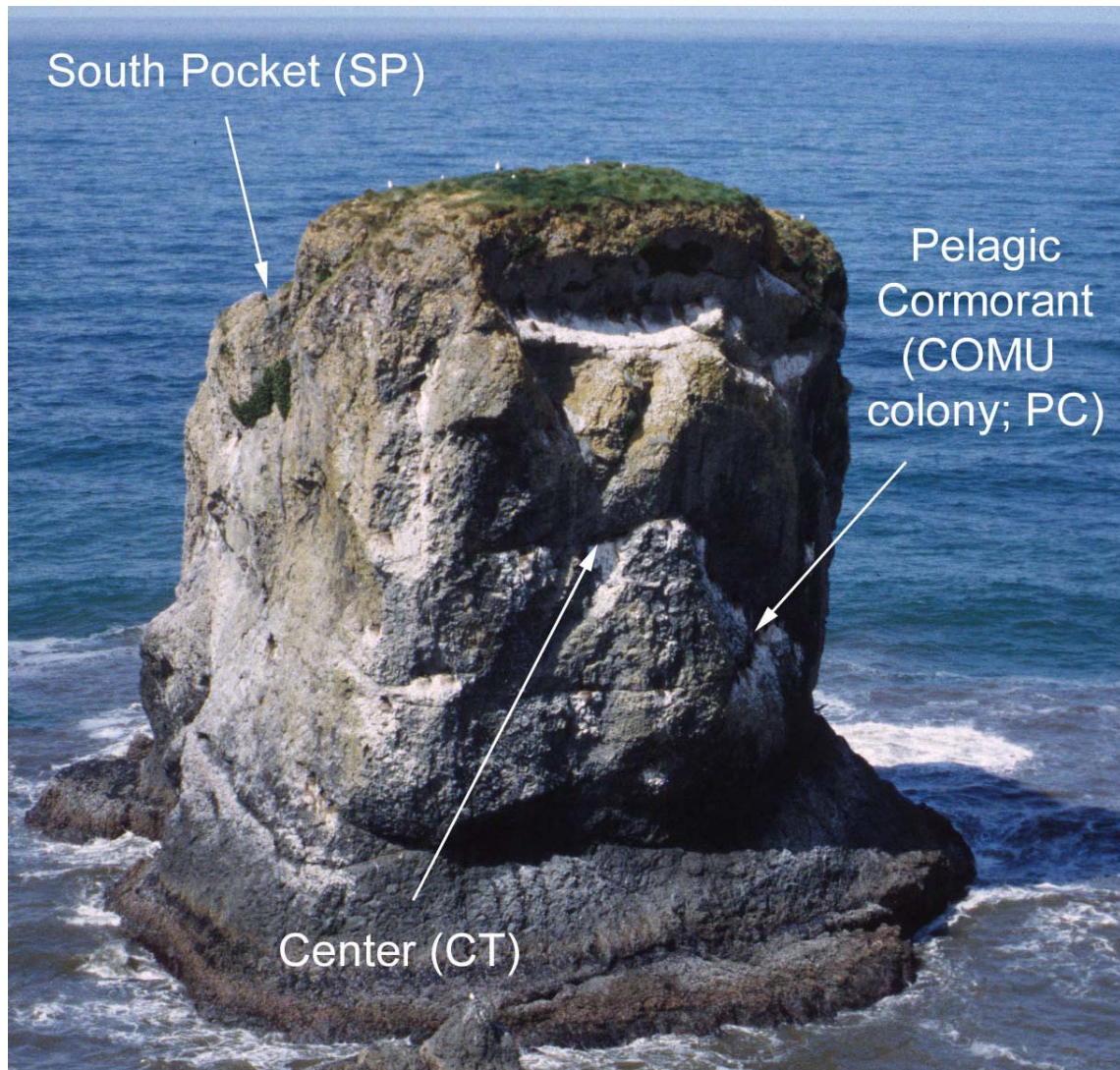
Grenville Arch from boat; S face (21 June 2001)



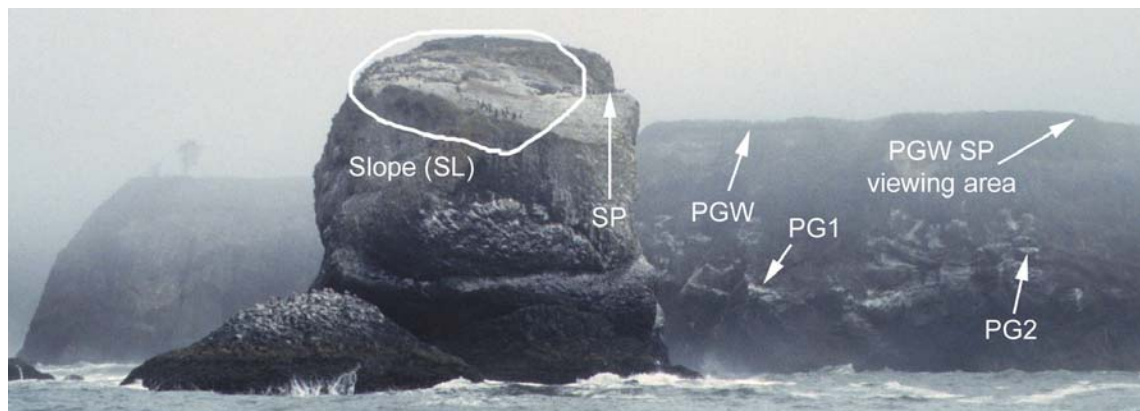
Grenville Arch from boat; N face (21 June 2001)



## Grenville Pillar (GP)

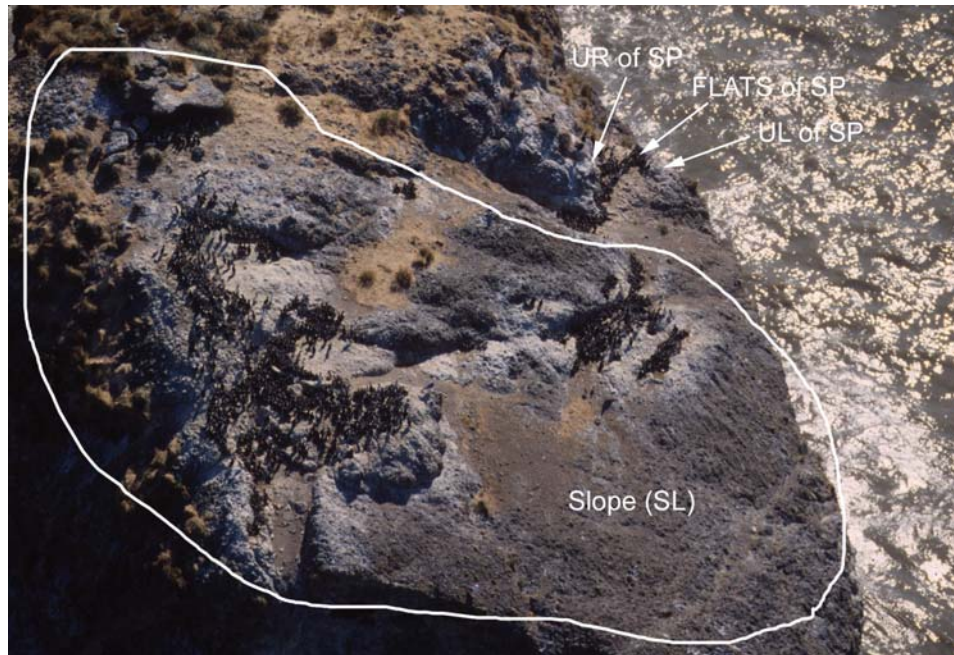


Grenville Pillar from PGW; E face (6 June 2001)



Grenville Pillar and Point Grenville from boat; SW face (21 June 2001)



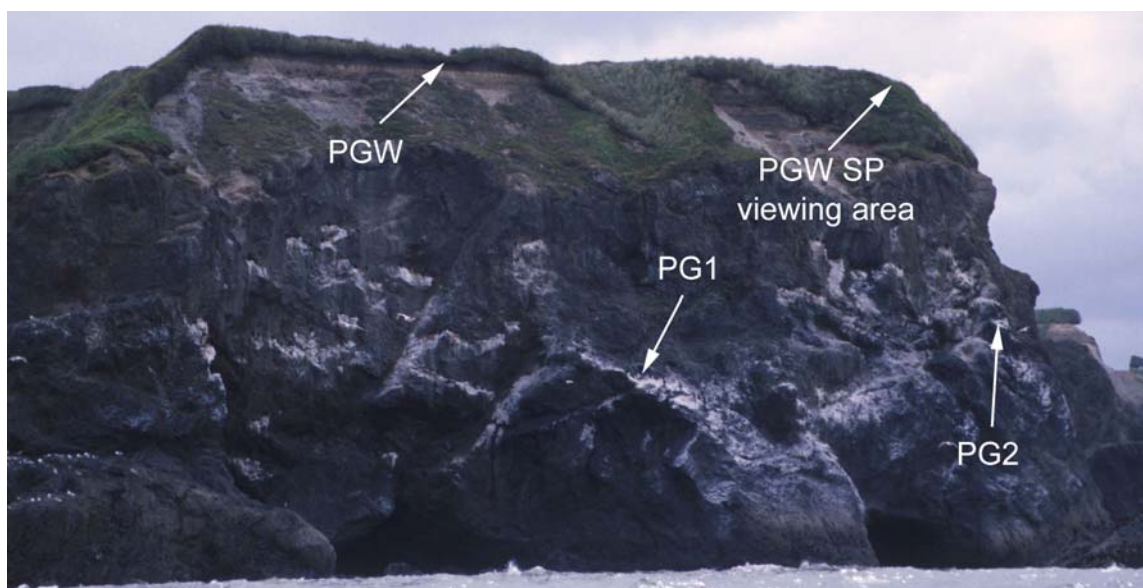


Grenville Pillar from the air (12 July 1996)

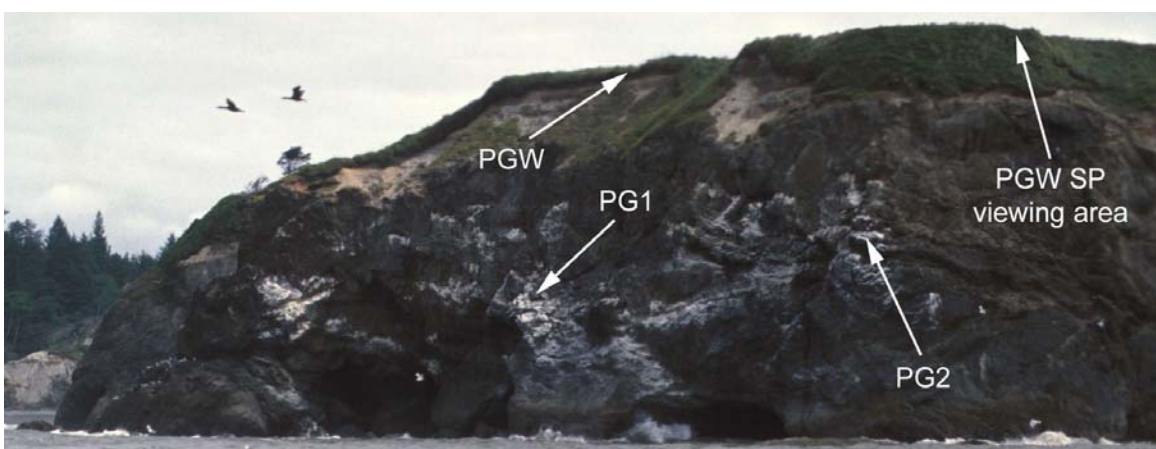
## Point Grenville (PG)



Point Grenville from the air (10 May 1997; Photo courtesy Ulrich Wilson, USFWS)



Point Grenville from boat; NW face (5 July 2001)



Point Grenville from boat; S face (5 July 2001)



# COMU Sub-colonies

## Erin

### C

Attendance and productivity data taken from GBS



C from GBS; E face (9 June 2001)



C from boat; SE face (5 July 2001)

## **D**

Attendance data taken from GBS, GBN, GBNN and GBNNN; best observed from GBN and GBNN



D from GBN; E/NE face (9 June 2001)

## **E**

Attendance data taken from GBS, GBNN and GBNNN; best observed from GBNN



E from GBN; E/NE face (9 June 2001)



**F**

Attendance data taken from GBS



F from GBS; E face (9 June 2001)

**G**

Attendance data taken from GBS



G from GBS; E face (9 June 2001)

# H

Attendance and productivity data taken from GBS



H from GBS; E face (9 June 2001)



H from boat; SE face (5 July 2001)



# **I**

Attendance data taken from GBS



I from GBS; E face (9 June 2001)



I from boat; SW face (5 July 2001)

# **J**

Attendance and productivity data taken from GBS



J from GBS; E face (9 June 2001)

## **K**

Attendance and productivity data taken from GBS



K from GBS; E face (9 June 2001)



K from boat; SE face (5 July 2001)

## **L**

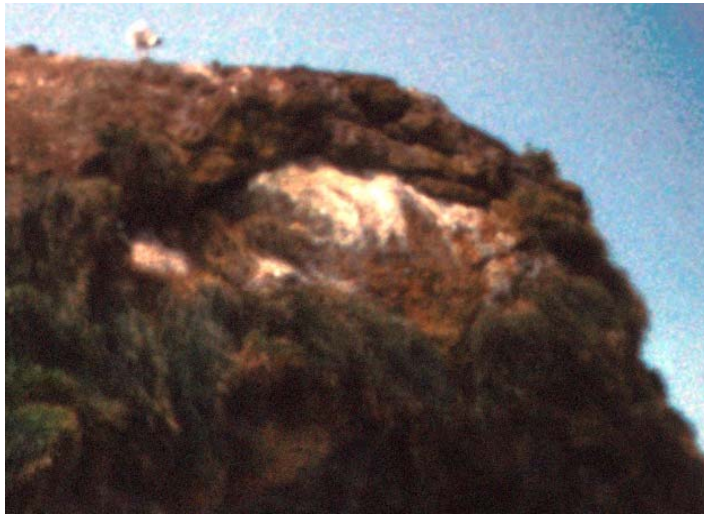
Attendance data taken from GBS, GBN, GBNN and GBNNN



L from GBN; E/NE face (9 June 2001)

## **M**

Attendance data taken from GBS, GBN, GBNN and GBNNN



M from GBN; E/NE face

## **DC**

Attendance data taken from GBS and PGS



DC from GBS; E face (9 June 2001)



DC from boat; SW face (5 July 2001)





DC from PGS; NW face (14 June 2001)

### **C North (CN)**

Attendance data taken from PGS and GBNNN; Best observed from PGS



CN from PGS; NW face (14 June 2001)



CN from boat; W face (5 July 2001)

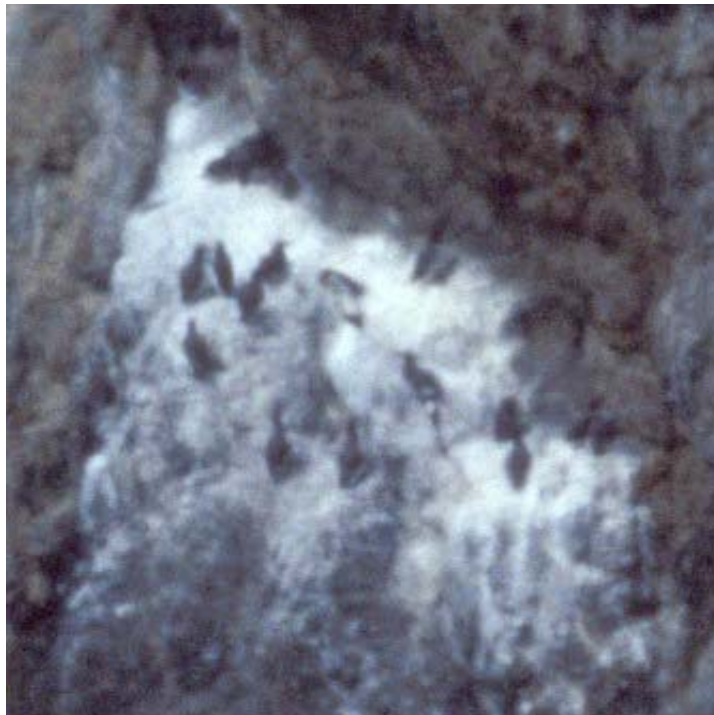
## Erin's Bride (ERB)

### A

Attendance and productivity data taken from GBS; best observed from GBS



A from GBS; E face (9 June 2001)



A from GBN; E/NE face (9 June 2001)



A from boat; S face (5 July 2001)

## **B**

Attendance and productivity data taken from GBS



B from GBS; E face (9 June 2001)





B from boat; S face (5 July 2001)

### **Scoop (SC)**

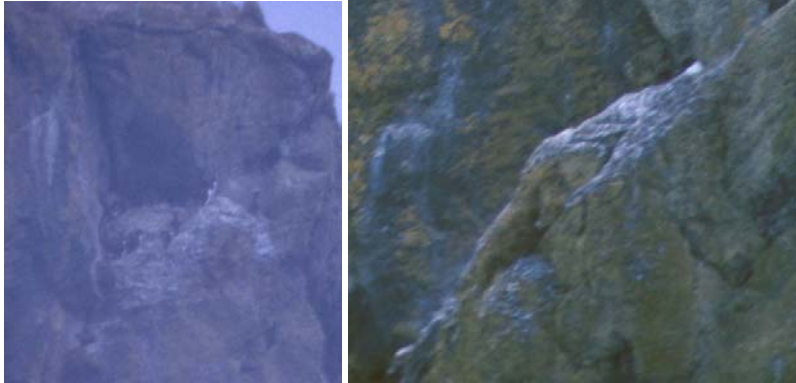
Attendance and productivity data taken from GBNNN and PGW; best observed from GBNNN



SC from GBNNN; N face (12 August 2001)

## **Diagonal Crack (DI)**

Attendance and productivity data taken from GBNNN, PGW; best observed from GBNNN



Left photo: DI from GBNNN; N face (12 August 2001)

Right photo: DI from boat; W face (5 July 2001)

## **Grenville Arch (GA)**

### **Low Rock (LR)**

Attendance data taken from GBS, GBN, GBNN, PGS and PGW; best observed from GBS, GBN, GBNN, PGS and PGW



LR from boat; E face (21 June 2001)

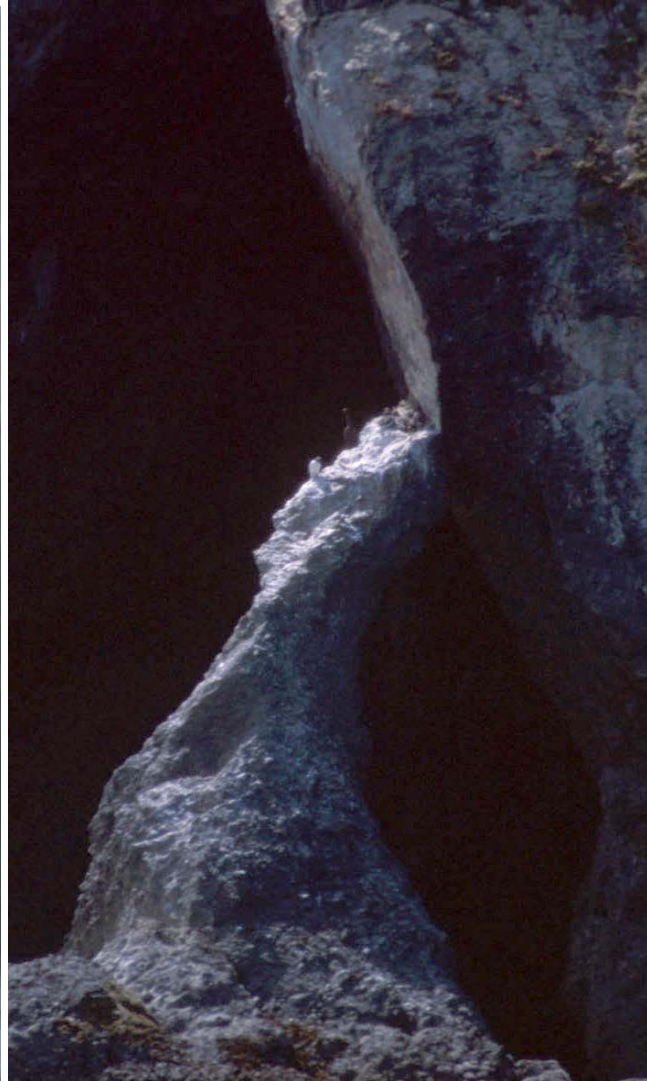


Left photo: LR from boat; SE face (21 June 2001)

Right photo: LR from boat; NW face (5 July 2001)

### **Neck (NK)**

Attendance data taken from GBS, GBN, GBNN, PGS and PGW; best observed from GBS, GBN, GBNN, PGS and PGW



Left photo: NK from boat; E face (21 June 2001)

Right photo: NK from boat; N face (5 July 2001)



### **Top Rock (TR)**

Attendance data taken from GBS, GBN, GBNN, PGS and PGW; best observed from GBS, GBN, GBNN, PGS and PGW



Left photo: TR from boat; E face (21 June 2001)

Right photo: TR from boat; N face (5 July 2001)

### **High Spot (HS)**

Attendance data taken from GBS, GBN, GBNN, PGS and PGW; best observed from GBS, GBN, GBNN, PGS and PGW



HS from boat; E face (21 June 2001)



HS from boat; N face (5 July 2001)

### **South Nub (SN)**

Attendance data taken from GBS



SN from boat; E face (21 June 2001)

### **Grenville Arch Southwest (GASW)**

Not visible from the mainland



GASW from boat; SW face (5 July 2001)



GASW from boat; W/SW face (5 July 2001)

## **Grenville Pillar (GP)**

### **Center (CT)**

Attendance, productivity, fish watch, activity watch and head-bob watch data collected from PGW



CT from PGW; E face (28 June 2001)



## **PC**

Attendance, productivity, fish watch, activity watch and head-bob watch data collected from PGW



PC from PGW; E face (13 August 2001)

## **South Pocket (SP)**

Attendance, fish watch, activity watch and head-bob watch data collected from PGW SP viewing area



SP from PGW SP viewing area; E face (28 June 2001)



SP from the air (12 July 1996; photo courtesy Ulrich Wilson, USFWS)

### **Slope (SL)**

Not visible from the mainland



SL from boat; SW/W face (21 June 2001)





SL from the air (12 July 1996; photo courtesy Ulrich Wilson, USFWS)

## Point Grenville (PG)

### Point Grenville 1 (PG1)

Attendance data taken from site ~ 20m N of PGW



Left photo: PG1 from mainland, near PGW (June/July 2001)

Right photo: PG1 from boat; S face (5 July 2001)





PG1 from boat; NW face (5 July 2001)

## **Point Grenville 2 (PG2)**

Not visible from the mainland



PG2 from boat; S face (5 July 2001)